don't hinder the research, are there only to report on what is happening. Some may be scientists.

Chamberlain points out that the Russians' ability to make swift decisions and execute them quickly stems from the fundamental dictatorial methods of their political system. Once the Presidium reaches a decision, the order goes to the Council of Ministers and then to the agency involved. There is no need to await appropriations or authorizations by other agencies. Furthermore, very little effort is devoted to consumer research. "Without a large consumer industry, Chamberlain says, "the Russians don't have to pour personnel into the researching of new models of automobiles, household appliances."

Chemical Stalemate: Right now, Soviet chemical research slightly lags that of the U.S., generally, except in certain military fields, where it is on a par or a bit ahead. But the Soviet Union is obviously betting that its streamlined research system will tip this balance in its favor.

Augustus Kinzel, vice-president for research and development of Union Carbide Corp., agreed with Chamberlain during a panel discussion that Russia's lack of a consumer industry permitted heavy concentration of research personnel on government-selected projects. [redacted] visit to Russ[redacted] scientists. [redacted] one steel plant [redacted] bered more [redacted] plant in the [redacted] a research [redacted] plant has 40 [redacted]

Of cours[redacted] new resear[redacted] to the whim[redacted] shift in ob[redacted] phasis on [redacted] knowledge-s[redacted] reorganizat[redacted] vitally inter[redacted] search progra[redacted]

Thermal Reaction Starter

A [redacted] flash-heating technique, worked out by Bell Telephone Laboratories (New York), Lloyd Nelson *(left)* and John Lundberg, is expected to aid research on high-temperature reactions. They use a high-speed flash lamp to quickly heat to reaction temperatures finely divided black body particles or filaments in transparent materials. Only a few milliseconds elapse between initiation and quenching of thermal reactions; subsequent unwanted reactions are barred.

The technique may be used with solids, liquids and gases, raises black body particle temperatures (in low-pressure gases) to 6-9000 F. And it may prove useful as a rapid way to determine whether there are any impurities in apparently pure plastic. For example, carbon black or dust particles in polyethylene give off gases when flash-heated, cause bubbles to form in the plastic.

PRODUCTS

Ethylene Urea: Purified ethylene urea is now available from Metro-Atlantic, Inc. (Centredale, R.I.). Trade-named Cyclo-Ethylene Urea, it's for use as an intermediate, in textile treating, and in making resin. The dry form or a 40% solution (trade-named Atco 40-SP) are offered.

•

New Biochemicals: Collagenase for enzymatic degradation of connective tissue in medical investigations, and 3 - methoxy - 4 - hydroxymandelic acid for pharmacological and other biochemical studies are available from Chemicals Procurement Co. (New York).

•

Alcohol Entry: Arapahoe Chemicals, Inc. (Boulder, Colo.) will supply neopentyl alcohol (2,2-dimethylpropanol), the esters of which are suggested for possible use in pharmaceuticals, flavoring and perfumery. A low boiling point (112-114 C) and high melting point (55-56 C) characterize the compound.

•

Hot Gases: The Matheson Co., Inc. (East Rutherford, N.J.) is now supplying radioactive gases mixed with other gases. The mixtures contain krypton-85, gaseous carbon-14, tritium or sulfur-35 compounds.

•

New Reagent: Fisher Scientific Co. (Pittsburgh) is introducing a solution (No. So-V-20) for fast colorimetric determination of aluminum in phosphoric acid bright-dip baths.